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Idaho Conservation League

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Salmon-Cobalt Ranger District
Attn: Kimberly Nelson, District Ranger
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Salmon, Idaho, 83467

comments-intermtn-salmon-challis-salmon-cobalt@fs.fed.us,

April 27, 2012

Re: Panther (Big Creek) Hot Springs Geothermal Leasing Project

Dear Kimberly,

Thank you for the opportunity to comment on the Big Creek Hot Springs Geothermal Leasing Project. Since 1973, the Idaho Conservation League has worked to protect Idaho's clean water, wilderness, and quality of life. We have a long history of involvement with habitat protection and statewide energy issues. As Idaho's largest statewide conservation organization, we represent over 20,000 supporters who want to ensure that energy development and infrastructure are consistent with natural resource protection.

The Idaho Conservation League supports the development of alternative energy sources, and we find geothermal energy particularly promising when sited properly. Investing in properly sited geothermal energy can protect the environment, promote economic development, diversify the power system and keep the region economically competitive.

Where new development is needed, we must also ensure that the new development does not compromise Idaho's quality of life or critical wildlife habitat. Because the impact largely depends on the location of the project, we recommend careful review of the location and impacts of leases. Careful review and appropriate siting early in the process ultimately saves money and time for the agency and for energy developers.

In the case of the Big Creek geothermal leasing project, we have insufficient information to comment in detail on the siting or the transmission infrastructure. Documents detailing the location and potentially impacted natural resources were unavailable online. Further NEPA analysis and disclosure are needed in order to be consistent with existing federal laws and regulations.

Careful coordination is needed with the Sage-grouse Local Working Group, and the Idaho Department of Fish and Game, NOAA Fisheries, and the US Fish and Wildlife Service to adequately address sage-grouse and anadromous fish concerns.

The BLM's and Forest Service's top priority should be to site any and all new facilities and structures in previously developed areas, outside crucial habitat for fish and wildlife. The second priority should be to minimize impacts by the specific design of features to minimize adverse impacts and scheduling design to less sensitive times of the year. The third priority should be to utilize off-site mitigation to compensate for environmental degradation.

Our detailed comments are included below. We look forward to working with the proponent, the BLM and USFS, additional federal agencies and interested parties to formulate leasing stipulations that preserve Idaho's natural resources and provide renewable energy services to Idahoans. Please keep us on the list to receive both a hard copy and an electronic copy of all upcoming documents.

Sincerely,

Lara Rozzell
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Idaho Conservation League comments on the Panther (Big Creek) Hot Springs Geothermal Leasing Project

General Comments

Priorities: Avoid, Minimize, Mitigate

In terms of priorities, the BLM and USFS should first site exploration activities, facilities and infrastructure to avoid impacts to wildlife and cultural resources. For instance, industrial infrastructure would not be appropriate within Wild and Scenic River corridors such as the main Salmon River. If impacts cannot be entirely avoided, the agencies should incorporate design features to minimize impacts. Lastly, the agencies should mitigate for impacts that cannot be avoided or minimized.

Habitat, habitat fragmentation, and migration corridors

Portions of the potential project area contain important habitat for species such as salmon, steelhead, and other anadromous fish. Such habitat has been severely fragmented and reduced through a variety of management practices. The project should minimize negative impacts by avoiding areas of critical habitat for species of concern, establishing siting criteria to minimize soil disturbance and erosion on steep slopes, utilizing visual resource management guidelines, avoiding significant historic and cultural resource sites, and mitigating conflicts with other uses of the public lands.

We appreciate seasonal restrictions to avoid disturbing certain wildlife species and suggest that these restrictions may need to be expanded to offer adequate protection. New construction and infrastructure could also change crucial habitat for these species and may inhibit the ability of these species to survive. The project should avoid construction in any designated areas or lands for special management of these species.

One of the greatest concerns we have is the construction of new roads. Previous management activities have resulted in extensive road and right-of-way densities throughout our public lands. This density compromises the ability to support wildlife and fish by promoting further human disturbance, fragmenting habitat, accelerating sedimentation, spreading noxious weeds, and encouraging Off Road Vehicle use. Furthermore, there is a positive correlation between roads, even temporary ones, and human-caused wildfire ignitions.

New roads for construction and maintenance of geothermal development will provide more access for motorized recreation in areas without a current road system and more opportunities for illegal off-road riding. The devastating impacts of Off Road Vehicles (ORVs) on terrestrial ecosystems are well established. Irresponsible ORV users degrade water quality, spread noxious weeds, fragment habitat, disturb wildlife, increase fires, and displace non-motorized recreationists. The agencies need to analyze the impacts of ORV use accompanying new geothermal development, and describe the ability for the agencies to monitor and control ORV use as permitted by land management agencies.

We recommend that the agencies evaluate the road and transmission network to avoid impacts to wildlife habitat where feasible, and **close or decommission** unneeded roads and corridors as an integral part of the project.

Noxious Weeds

The most cost-effective way to deal with noxious weeds is to protect strongholds of native vegetation from activities that spread noxious weeds directly or create suitable habitat by removing native vegetation and disturbing the soil.

Project activities should limit road use and the exposure of mineral soils where weeds may become established. Roads, trails, and rivers serve as the primary routes for noxious weed species expansion. Special care should be taken to safeguard ecologically intact areas that are not currently infested. The agencies need to analyze the effects of noxious weeds in newly developed areas and transmission corridors and describe project management of weeds in these areas. For example, management strategies may include ensuring the tires and undercarriage of access vehicles are hosed down prior to site access to dislodge noxious weeds. The agencies should also analyze the effects of regular weed control activities in previously undisturbed areas. For example, weed treatments may affect non-target species and vehicle access may increase fire hazard and soil disturbance.

Water Quality

We are concerned that construction of new geothermal development could adversely impact water quality through increased sedimentation. We are also concerned that water discharges associated with operation of certain types of geothermal development could degrade ground or surface water quality. The operator must comply with all applicable federal and state water quality laws and regulations, including sections 303, 401, and 404 of the Clean Water Act. Even though chemical use may limited, we are still concerned about the use of fuels, lubricants, solvents, and other toxic chemicals being transported along streams, intermittent streams and drainages. The use of these hazardous materials must be carefully evaluated and all fuel storage should be greater than 300' from live water. Spill clean up materials, fire-fighting equipment, and a spill response plan must be kept in all vehicles. An oil-absorbent boom should be strategically placed so it can be quickly deployed in the event of a transportation accident. Heavy equipment should be inspected for oil and hydraulic fuel leaks prior to operation and during operations.

Cumulative Effects

Wildlife habitat fragmentation is a potential issue with this project. To further fragment habitat could be devastating for several species and is not necessary. We suggest planning development to use existing corridors and development as much as possible, as this will result in less fragmentation and overall impact. Commercial production of geothermal energy will require transmission lines to bring the energy onto the grid. NEPA requires the analysis of reasonable foreseeable future actions. The agencies need to analyze the effects of additional power lines joining any proposed sites to the nearest transmission.

Increased Fire Hazard

The agencies must consider the potential for increased risk of human-caused fire during exploration activities, as well as during construction and maintenance, and the potential impacts to vegetation types. We also recommend developing an evacuation plan and identifying potential safe zones during construction in the event of a wildfire.

Monitoring

The agencies should make regular site visits to ensure compliance with mitigation measures and should also engage in spot inspections without prior notification.

Mitigation Measures

Because not all environmental impacts can be adequately avoided or minimized, environmental mitigation will be necessary. We believe that there are some potential off-site mitigation options for potentially affected wildlife. Mitigation may include rehabilitation of areas infested with non-native annual grasses and other invasive species with native plant species, conservation easements on private property, native seed bank funds, and the voluntary retirement of grazing allotments. The agencies should consider decommissioning and rehabilitating low-use, high-risk roads and routes

throughout the project area as part of the mitigation package. The agencies and project proponent should investigate these options are part of this project analysis. If migratory species are being affected, another approach is to improve conservation efforts in other areas. Just as mitigation for salmon affected by dams includes protecting spawning habitat, energy development and transmission projects affecting migratory species could purchase conservation easements in other key habitats. We look forward to working with interested stakeholders to identify potential off-site mitigation areas and opportunities.

Effectiveness of Mitigation
Any discussion of mitigation measures must include some indication of the potential effectiveness of the measure. For example, the revegetation plan must include some analysis of the potential to establish viable native plant species that will remain viable on the landscape into the future. It is not sufficient to merely state that reseeding will occur, but that desired vegetation will be established and maintained.

Private Land Options
Given procedural and legal limitations on the use of voluntary applicant funds for off-site mitigation on public lands, we believe that in many cases it may be most productive to use mitigation funds for conservation measures on private land. For example, there may be significant opportunities to either purchase private lands to be placed in conservation easements within the vicinity of the project route or to enter into voluntary agreements with private landowners. In addition, mitigation funds could be used to rehabilitate habitat on private lands to promote wildlife reintroduction.

Purchase and Retirement of Grazing Allotments from willing sellers
Improperly managed domestic livestock grazing on public lands has been detrimental to both the health of wildlife habitat and water quality. Once the quality of the vegetation has been degraded significantly, natural rehabilitation can be difficult due to the natural aridity of this region. The potential exists to identify key habitat in the vicinity of the proposed leases and direct mitigation efforts there.

Partners in Mitigation Efforts
The development of offsite mitigation should require input from interested private property owners, state and federal agencies, non-profit organizations and conservation groups. Although the complete restoration of the surrounding area is beyond the scope of this project, compensatory funds from this project could provide important seed money to start this initiative and build the necessary partnerships and momentum. This project's offsite mitigation program could also serve as a ready-made template for mitigating future energy development and transmission lines across Idaho, whether located on federal, state, or private land. In this manner, we can develop much-needed alternative energy infrastructure and preserve our wildlife heritage.

Use of Funds
Any funds generated for off-site mitigation for wildlife must be accompanied by the stipulation that these funds are strictly used for the benefit of wildlife, fish, and the environment. Under no circumstance should these funds be available for other purposes. If additional measures are necessary to mitigate for local visual, community, economic or other non-wildlife concerns, funding for this mitigation should come from another source and not the percentage devoted to wildlife mitigation.

Specific Comments

Greater Sage-Grouse
Analysis is needed regarding sage-grouse use of the leasing area *as well as along potential transmission line routes.* While the Idaho Sage-Grouse Conservation Plan addresses sage-grouse conservation at the

statewide scale, *site-specific* information is found in the documents drawn up by the Local Working Group. The Salmon-Challis Local Working Group has conducted sage-grouse telemetry in the region, and should be consulted to determine potential sage-grouse use for the project area and associated transmission construction. These data will be needed to determine appropriateness of geothermal siting, timing limitations, or required mitigation. The Sage-Grouse Monograph, published in late 2009, and the BLM's new sage-grouse Breeding Density maps contain further site-specific and species-specific information for making leasing siting decisions, creating leasing stipulations, and determining mitigation needs.

Stipulations

We recommend the use of stipulations similar to those applied to the Grand Mesa National Forest geothermal leases, included as Attachment A. There are site-specific differences, but most of the stipulations are applicable with relevant substitutions. For instance, the stipulations applied for Gunnison's Sage-Grouse in Colorado will be appropriate for Greater Sage-Grouse at the Salmon-Challis site.

We also recommend that at a minimum, the agencies use the stipulations applied to the BLM's Crane Creek geothermal leases. Excerpts from the stipulations are included below:

No Surface Occupancy (NSO)

1. Riparian, Wetland and Floodplain Stipulation: The 100-year floodplains, wetlands, and riparian areas, and perennial stream courses are closed to any new permanent facilities. This stipulation may be waived, excepted or modified by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

2. Slopes: On slopes in excess of 40 percent and/or soils with high erosion potential.

3. Wildlife: No surface occupancy would be allowed on areas inhabited by Southern Idaho ground squirrels. No populations are currently known within the lease area. Surveys for this species would be required before ground-disturbing activities could take place. The surveys would have to occur from March 15 to May 1, when the ground squirrels are active above ground.

Timing Limitations (TL) and Controlled Surface Use (CSU)

1. Water Resources: No surface disturbing activity would be allowed within 500 feet of water bodies, riparian areas, wetlands, and 100-year floodplains, or perennial streams, and within 100 feet of inner gorge of intermittent/ephemeral streams, unless site-specific analysis determines that no adverse impacts would occur. Riparian and wetland habitat includes the presence of riparian vegetation even without surface water being present, and all springs, even when seasonally non-flowing.

2. Protection of erosive soils and soils on slopes between 30 and 40 percent: Best management practices would be required on a site by site basis to protect erosive soils defined as severe or very severe erosion classes based on Natural Resources Conservation Service (NRCS) mapping or slopes between 30 and 40 percent. The best management practices would include, but not be limited to stockpiling, mulching, seeding with BLM approved seed and monitoring the seeding for successful germination.